UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/627,191	07/27/2000	Srihari Adireddy	PHA 23,837	1207

24737 7590 02/21/2007
PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER	
KUMAR, PANKAJ	
ART UNIT	PAPER NUMBER
2611	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/627,191	ADIREDDY ET AL.	
	Examiner	Art Unit	
	Pankaj Kumar	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9, 17-20* is/are rejected.

7)☒ Claim(s) *10-16* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed have been fully considered but they are not persuasive.

2. Applicant argues that "comprises" can be in the abstract. This is not persuasive since MPEP 608.01(b or c) says, "The form and legal phraseology often used in patent claims, such as "means" and "said" should be avoided." Accordingly, as "comprises" or "comprise" are often used in patent claims, it should not be used in the abstract.

3. Applicant asserts of page 10 that the office should look at the specification to find the connection between parts 1 and 2 of the claim. This is not persuasive since even when the specification shows connections, the claims need to claim the connections also. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

4. Applicant asserts of page 10 that claim 1 is to a receiver since it recites, "said first receiver comprises". If this is accurate, then what is the purpose of the beginning of the claim reciting "A transmitter"? Then the remainder of the dependent claims are to a transmitter since they recite "The transmitter as set forth in claim ..." It is not clear what the claims are claiming. If, as applicant argues that the claim is to a receiver, then why are all of the dependent claims reciting transmitter?

5. Applicant's assertion such as on pages 11 and 12 of applicant's argument that the office must provide 1) column and line numbers for such limitations as "training sequences" or 2) provide and affidavit or 3) provide another reference is without merit and not procedurally sound based on MPEP. As per applicant's first point, the drawings are part of the specification and

column and lines numbers are not necessitated by the MPEP when the limitation is taught in the drawings. As per applicant's second point, MPEP does not say that the office is required to provide an affidavit. As per applicant's third point, another reference is not required when the reference cited teaches the limitation. In this case, applicant did not even claim a training sequences and applicant is without merit requesting teaching of such in the specification, or an affidavit or another reference when the MPEP does not require it.

6. On page 11, applicant argues that Nobakht does not teach a decision feedback equalizer for receiving said stream of distorted known symbols and distorted unknown symbols and generating sequence detected symbols. This is not persuasive since prior taught that Nobakht teaches a decision feedback equalizer (Nobakht fig. 6: 611, 605, 623) for receiving said stream of distorted known symbols (Nobakht fig. 6: input into 603 is distorted as it is from the channel; distorted symbols are input into the trainer system 675 and they are known at the output of 676 as a trainer has to know in order to train) and distorted (Nobakht fig. 6: input into 601 is distorted as it is from the channel) unknown symbols (Nobakht fig. 6: data into 695 is unknown as it needs to be trained) and generating sequence detected symbols (Nobakht fig. 6: a(k)). Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

7. On page 12, applicant argues that the office interpreted figure 6 without support in the patent and this practice is prohibited. This is not persuasive for a number of reasons. First, it is the responsibility of the office, based on MPEP, to take the broadest reasonable interpretation. Second, figure 6 is support of the patent. There is a saying that 'a picture is worth a thousand words'. The picture of figure 6 is a support of the patent as figure 6 is part of the specification.

8. On page 12, applicant argues that Javerbring teaches extracted ISI and not precursor ISI. This is not persuasive since Javerbring teaches "precursor" and "ISI" at least in col. 3.

9. Applicant argues that Nobakht does not teach distorted known symbols. This is not persuasive since it was recited in the action that Nobakht teaches, "distorted known symbols (Nobakht fig. 6: input into 603 is distorted as it is from the channel; distorted symbols are input into the trainer system 675 and they are known at the output of 676 as a trainer has to know in order to train)". Again applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

10. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

11. Applicant's other arguments also do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections. Applicant's other arguments also fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

12. As per applicant's argument regarding official notice, there was no official notice taken.

13. Applicant argues "Perhaps, the examiner relied on personal knowledge of the facts or those of a skilled artisan". This is not persuasive since all limitations and motivations to combine references were from the prior art and citations were made in the prior art as to where the limitations were taught and where the motivations were taught.

14. Applicant argues that there is no motivation to combine this is not persuasive since the following are examples of motivations were recited in the prior action:

15. "Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at the precursor ISI as recited by the instant claims, because the combined teaching of Nobakht with Javerbring suggest precursor ISI as recited by the instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the teachings of Nobakht with Javerbring because Nobakht suggests ISI (something broad) in general and Javerbring suggests the beneficial use of reducing precursor ISI such as being more efficient in terms of not having to reduce both post cursor and precursor ISI is post cursor ISI does not pose a problem in the analogous art of reducing ISI."

16. "Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at the distribution controller capable of inserting a plurality of known symbols into an outgoing stream of unknown symbols in an optimum distribution in order to improve the performance of said first receiver as recited by the instant claims, because the combined teaching of Nobakht with Suzuki suggest distribution controller capable of inserting a plurality of known symbols into an outgoing stream of unknown symbols in an optimum distribution in order to improve the performance of said first receiver as recited by the instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the teachings of Nobakht with Suzuki because Nobakht suggests training (something broad) in general and Suzuki suggests the beneficial use of inserting training symbols such as providing a short time highly accurate measurement (Suzuki col. 2 lines 66-67) in the analogous art of training."

17. "Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at the precursor ISI as recited by the instant claims, because the combined teaching of Nobakht with Javerbring suggest precursor ISI as recited by the instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the teachings of Nobakht with Javerbring because Nobakht suggests ISI (something broad) in general and Javerbring suggests the beneficial use of reducing precursor ISI such as being more efficient in terms of not having to reduce both post cursor and precursor ISI is post cursor ISI does not pose a problem in the analogous art of reducing ISI.

18. "Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at the distribution controller capable of inserting a plurality of

known symbols into an outgoing stream of unknown symbols in an optimum distribution in order to improve the performance of said first receiver as recited by the instant claims, because the combined teaching of Nobakht with Suzuki suggest distribution controller capable of inserting a plurality of known symbols into an outgoing stream of unknown symbols in an optimum distribution in order to improve the performance of said first receiver as recited by the instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the teachings of Nobakht with Suzuki because Nobakht suggests training (something broad) in general and Suzuki suggests the beneficial use of inserting training symbols such as providing a short time highly accurate measurement (Suzuki col. 2 lines 66-67) in the analogous art of training."

19. "Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at the multiple receivers as recited by the instant claims, because the combined teaching of Nobakht with Pite suggest multiple receivers as recited by the instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the teachings of Nobakht with Pite because Nobakht suggests receiver (something broad) in general and Pite suggests the beneficial use of multiple receivers such as that taught in Pite col. 8 lines 11-22 in the analogous art of receiver."

20. Applicant argues that there is no reasonable expectation of success since the arts are not combinable. This is not persuasive since the combinations of references are in analogous art and thus there is a reasonable expectation of success and they are combinable.

21. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on

obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Response to Amendment

Claim Rejections - 35 USC § 112

22. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

23. Claims 1-8, 17-20 rejected under 35 U.S.C. 112, first paragraph, because the best mode contemplated by the inventor has not been disclosed. Evidence of concealment of the best mode is based upon the independent claims not teaching how parts 1 and 2 of the claims are connected.

24. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

25. Claims 1-8, 17-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Also, at least for claims 1-8, it is not clear if the claims are to a transmitter or a receiver.

26. Claims 1-8, 17-20 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission

amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: parts 1 and 2 of the independent claims.

27. Claim 1 part 1 has a DFE working on the stream of distorted known and unknown symbols from the transmitter while part 2 has the same DFE working on data from a known symbol generator. Thus, it appears that the work the DFE does in part 1 does not affect the work the DFE does in part 2 and vice versa. Hence, the claim is objected to since there is a disconnect between parts 1 and 2 of the DFE in the receiver. This is similarly rejected in claim 17.

Claim Rejections - 35 USC § 103

28. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

29. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nobakht USPN 5,692,011 in view of Suzuki USPN 5,602,484 and Javerbring USPN 6,269,116. Here is how the references teach the claim:

30. As per claim 1: A transmitter capable of transmitting a stream of known symbols and unknown symbols through a transmission channel to a first receiver that receives said transmitted stream known symbols and unknown symbols distorted by intersymbol interference (ISI), wherein said first receiver comprises (limitations of the preamble are discussed in the remainder of the claim) 1) a decision feedback equalizer (Nobakht fig. 6: 611, 605, 623) for receiving said stream of distorted known symbols (Nobakht fig. 6: input into 603 is distorted as it is from the

channel; distorted symbols are input into the trainer system 675 and they are known at the output of 676 as a trainer has to know in order to train) and distorted (Nobakht fig. 6: input into 601 is distorted as it is from the channel) unknown symbols (Nobakht fig. 6: data into 695 is unknown as it needs to be trained) and generating sequence detected symbols (Nobakht fig. 6: a(k)) and 2) a known symbol generator (Nobakht fig. 6: 675) for generating a copy of a first known symbol (Nobakht fig. 6: output of 613 goes to 605 and a copy of it goes to the summer in 675) prior to an estimation of said first known symbol by said decision feedback equalizer (Nobakht fig. 6: copy of output of 613 is made to go into the summer in 675 before the output of 613 is estimated in 695), said decision feedback equalizer using said copy of said first known symbol (Nobakht fig. 6: left input into 605) to reduce a precursor ISI signal (Nobakht fig. 6: output of 605 is meant to reduce ISI in y1(k); col. 1 line 47) in a second symbol, said second symbol being transmitted prior to said first known symbol (Nobakht fig. 6: second input into 601 will occur prior to the output of 613 as the output of 613 is generated after going through a number of elements), wherein the transmitter (Nobakht fig. 7: transmitter) comprises: a known symbol (Nobakht col. 2 lines 41-42: transmitted symbols which have to be known aprior) distribution controller capable of inserting a plurality of known symbols into an outgoing stream of unknown symbols in an optimum distribution (not in Nobakht but would be obvious as explained below).

31. Although Nobakht teaches ISI, it does not teach precursor ISI. Javerbring teaches precursor ISI (Javerbring col. 3 lines 45-51; col. 4 line 13). Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at the precursor ISI as recited by the instant claims, because the combined teaching of Nobakht with Javerbring suggest precursor ISI as recited by the instant claims. Furthermore, one of ordinary skill in the art, would

have been motivated to combine the teachings of Nobakht with Javerbring because Nobakht suggests ISI (something broad) in general and Javerbring suggests the beneficial use of reducing precursor ISI such as being more efficient in terms of not having to reduce both post cursor and precursor ISI is post cursor ISI does not pose a problem in the analogous art of reducing ISI.

32. Nobakht does not teach distribution controller capable of inserting a plurality of known symbols into an outgoing stream of unknown symbols in an optimum distribution. Suzuki teaches distribution controller capable of inserting a plurality of known symbols into an outgoing stream of unknown symbols (Suzuki fig. 4: training signal or known symbols are inserted in to signal with unknown symbols or data; col. 4 line 62: symbol) in an optimum distribution (Suzuki col. 5 lines 64-66). Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at the distribution controller capable of inserting a plurality of known symbols into an outgoing stream of unknown symbols in an optimum distribution as recited by the instant claims, because the combined teaching of Nobakht with Suzuki suggest distribution controller capable of inserting a plurality of known symbols into an outgoing stream of unknown symbols in an optimum distribution as recited by the instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the teachings of Nobakht with Suzuki because Nobakht suggests training (something broad) in general and Suzuki suggests the beneficial use of inserting training symbols such as providing a short time highly accurate measurement (Suzuki col. 2 lines 66-67) in the analogous art of training.

33. Claims 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nobakht USPN 5,692,011 in view of Suzuki USPN 5,602,484, Javerbring USPN 6,269,116, and Pite USPN 6,167,276. Here is how the references teach the claims:

34. The above discussion of claim 1 applies for the remaining independent claims 9, 17 also. Here is a repeat of that discussion:

35. As per claims 9 and 17: plurality of receivers (not in Nobakht but would be obvious as discussed below); a decision feedback equalizer (Nobakht fig. 6: 611, 605, 623) for receiving said stream of distorted known symbols (Nobakht fig. 6: input into 603 is distorted as it is from the channel; distorted symbols are input into the trainer system 675 and they are known at the output of 676 as a trainer has to know in order to train) and distorted (Nobakht fig. 6: input into 601 is distorted as it is from the channel) unknown symbols (Nobakht fig. 6: data into 695 is unknown as it needs to be trained) and generating a sequence of detected symbols (Nobakht fig. 6: a(k)); a known symbol generator (Nobakht fig. 6: 675) for generating a copy of a first known symbol (Nobakht fig. 6: output of 613 goes to 605 and a copy of it goes to the summer in 675) prior to an estimation of said first known symbol by said decision feedback equalizer (Nobakht fig. 6: copy of output of 613 is made to go into the summer in 675 before the output of 613 is estimated in 695), said decision feedback equalizer using said copy of said first known symbol (Nobakht fig. 6: left input into 605) to reduce a first precursor ISI signal (Nobakht fig. 6: output of 605 is meant to reduce ISI in y1(k); col. 1 line 47) in a second symbol, said second symbol being transmitted prior to said first known symbol (Nobakht fig. 6: second input into 601 will occur prior to the output of 613 as the output of 613 is generated after going through a number of elements), wherein the transmitter (Nobakht fig. 7: transmitter) comprises: a known symbol

(Nobakht col. 2 lines 41-42: transmitted symbols which have to be known aprior) distribution controller capable of inserting a plurality of known symbols into an outgoing stream of unknown symbols in an optimum distribution in order to improve the performance of said first receiver (not in Nobakht but would be obvious as explained below).

36. Although Nobakht teaches ISI, it does not teach precursor ISI. Javerbring teaches precursor ISI (Javerbring col. 3 lines 45-51; col. 4 line 13). Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at the precursor ISI as recited by the instant claims, because the combined teaching of Nobakht with Javerbring suggest precursor ISI as recited by the instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the teachings of Nobakht with Javerbring because Nobakht suggests ISI (something broad) in general and Javerbring suggests the beneficial use of reducing precursor ISI such as being more efficient in terms of not having to reduce both post cursor and precursor ISI is post cursor ISI does not pose a problem in the analogous art of reducing ISI.

37. Nobakht does not teach distribution controller capable of inserting a plurality of known symbols into an outgoing stream of unknown symbols in an optimum distribution in order to improve the performance of said first receiver. Suzuki teaches distribution controller capable of inserting a plurality of known symbols into an outgoing stream of unknown symbols (Suzuki fig. 4: training signal or known symbols are inserted in to signal with unknown symbols or data; col. 4 line 62: symbol) in an optimum distribution in order to improve the performance of said first receiver (Suzuki col. 5 lines 64-66). Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at the distribution controller capable of inserting a plurality of known symbols into an outgoing stream of unknown symbols in an

optimum distribution in order to improve the performance of said first receiver as recited by the instant claims, because the combined teaching of Nobakht with Suzuki suggest distribution controller capable of inserting a plurality of known symbols into an outgoing stream of unknown symbols in an optimum distribution in order to improve the performance of said first receiver as recited by the instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the teachings of Nobakht with Suzuki because Nobakht suggests training (something broad) in general and Suzuki suggests the beneficial use of inserting training symbols such as providing a short time highly accurate measurement (Suzuki col. 2 lines 66-67) in the analogous art of training.

38. Also, for claims 9 and 17, Nobakht does not teach multiple receivers. Pite 6167276 teaches multiple receivers (Pite col. 8 line 20: "multiple receivers"; line 35: "three base transceiver stations BTS1 to BTS3"). Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at the multiple receivers as recited by the instant claims, because the combined teaching of Nobakht with Pite suggest multiple receivers as recited by the instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the teachings of Nobakht with Pite because Nobakht suggests receiver (something broad) in general and Pite suggests the beneficial use of multiple receivers such as that taught in Pite col. 8 lines 11-22 in the analogous art of receiver.

Allowable Subject Matter

39. Claims 10-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

40. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

41. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

42. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pankaj Kumar whose telephone number is (571) 272-3011. The examiner can normally be reached on Monday through Friday.

43. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

44. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Pankaj Kumar
Primary Examiner
Art Unit 2611

PK